

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for obtaining resin product design parameters for use in an event of designing a resin product to be molded by injection molding, the method comprising the steps of:

obtaining a mold clamping force required for conducting injection molding of a resin product having a specified shape using a computer-aided optimization method; and obtaining the design of said resin product based on the thus obtained mold clamping force, and

in which a process parameter for determining an inflow of a resin material from a plurality of resin inflow conduits connecting with a cavity is used as a variable parameter for determining said mold clamping force,

wherein said process parameter is a parameter which controls actions of valve gates located at said plurality of resin inflow conduits, and

wherein resin product design parameters are optimized under the condition where at least one of the valve gates is selected as a timing regulation gate, ~~and at least one~~ that is restricted by the action of other gates, in order that at least one valve gate is kept open at any given time during filling stage; ~~and~~

~~wherein the timing regulation gate is restricted by the action of other gates.~~

2-4. (cancelled).

5. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein said valve gate is controlled by choosing either full opening or full closing.

6. (cancelled).

7. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein resin material for molding is thermoplastic resin.

8. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein resin material for molding is polypropylene-base resin.

9. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein resin material for molding is low flow resin.

10. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein the material of the product is determined based on the mold clamping force determined by an optimization method.

11. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein the thickness distribution of the product is determined based on the mold clamping force determined by an optimization method.

12. (previously presented): The method for obtaining resin product design parameters according to Claim 1, wherein the thickness distribution of the product is determined by an optimization method under constraint conditions for the mold clamping force.

13. (currently amended): A method for producing ~~of a resin product~~, comprising molding a resin product in an injection molding process so as to produce a resin product that satisfies resin product design parameters obtained from the method according to Claim 1~~the method comprising at least a step of implementing resin product design parameters obtained from the method according to Claim 1 in an injection molding process to obtain the resin product.~~

14. (currently amended): An injection molding device comprising:
a molding device main body which feeds a molten resin to a mold having a plurality of resin inflow conduits to a cavity therethrough;
a memory section which memorizes molding parameters determined by a computer-aided optimization method such that a resin product that satisfies resin product design parameters

obtained from the method according to Claim 1 can be produced~~resin-product design parameters~~

~~obtained in the method according to Claim 1; and~~

a control section which conducts injection molding while controlling said molding device
main body based on said resin design parameters.